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U.S. DEPARTMENT OF AGRICULTURE

In cooperation with State, Federal and Other Agencies

COTTON INSECT CONDITIONS - JUNE 22, 1951
(Fifth Cotton Insect Survey Report for 1951)

The boll weevil has now taken its usual high rank as a pest of cotton. Rains during June brought the weevils out of hibernation in many areas. Heavy weevil populations now occur in thousands of fields in many counties in all states from central Texas to the Atlantic Coast. A new generation of weevils is developing in southern Georgia and in Florida and the other Gulf states. Weevils have made their appearance in Virginia and in many counties in North Carolina, Tennessee, Arkansas, and in some of the northern and western counties of Oklahoma. Although it is not likely that the boll weevil populations will become as high in a dozen states as they were in 1950, this could happen in all the boll weevil states if weather conditions during the next 6 weeks are especially favorable for the weevils. Where rains and humid conditions prevail, the weevils will increase rapidly, but it is hoped they will be checked in many areas by hot, dry weather.

Cotton growers who had to contend with heavy boll weevil populations during 1949 or 1950 should be prepared to fight the weevils during July and August.

The pink bollworm situation is now probably more serious in Texas than in early June of any previous year. Pink bollworms are more abundant than ever before this early in the season in about 20 Texas counties. If serious losses are to be prevented and the spread of the pink bollworm to other counties checked, applications of DDT may be required in many of the early infested fields, so the pink bollworm inspectors plan to watch the situation closely and advise growers when insecticides should be applied for pink bollworm control. Every effort must be made to get the 1951 crop harvested promptly and rapidly and the stalks cut at the earliest possible date.

RECOMMENDED READING: Agricultural Engineering Circular No. 75 from Clemson College, entitled "Low Cost Cotton Hand Sprayer" by G. H. Stewart and Simon T. Russell is a 4-page mimeographed, illustrated leaflet that was issued in May, 1951, by the Agricultural Extension Service, D. W. Watkins, Director, Clemson College, Clemson, South Carolina.

INSECTICIDES

OKLAHOMA: C. F. Stiles, Extension Entomologist, wrote on June 14: "The insecticide dealers from the Altus area are beginning to report a toxaphene shortage."

SOUTH CAROLINA: The Extension Service reported on Juhe 18 a shortage of toxaphene in Marion County.

EQUIPMENT

SOUTH CAROLINA: The Extension Service reported on June 18 shortages of hand sprayers in Berkeley, Fairfield, Kershaw, and Lancaster counties; shortages of nozzles for hand sprayers in Berkeley County; shortages of hand dusters in Kershaw county and shortages of tractor sprayers in Williamsburg County.

BOLL WEEVIL

VIRGINIA: Wayne L. Howe, Associate Entomologist, Tidewater Field Station, Holland, reported on June 18 that 5 boll weevils were found in the examination of 250 cotton plants in an Experiment Station field. This indicates that the weevils have survived the winter and are entering the cotton fields in large numbers.

J. O. Rowell, Extension Entomologist, wrote on June 13: "I am glad to report that in the four counties - Mecklenburg, Greenville, Sussex, and Southampton - in which infestation checks were made, no boll weevils were found. So far, to my knowledge, no boll weevils have been reported in cotton fields in Virginia. A few North Carolina cotton growers attended the meeting in Greenville County. They report that no boll weevils had been found in their cotton fields in North Carolina."

J. O. Rowell wrote on June 22: "I am quoting a letter received today from County Agent, Stanford L. Vassar, Emporia, Greensville County, Emporia, Virginia: 'Last week I heard that there were a few boll weevils in one section of the County and yesterday I went into that section and found 4% infestation. One man dusted his cotton last week because he found 3 boll weevils in one field.'"

NORTH CAROLINA: Cotton News Letter No. 12 issued by the Extension Service on June 15: "Boll weevils began showing up in greater numbers this week, except in the Piedmont and more northern areas. There seems to be a wide variation in activities."

During the previous week boll weevils were found in 77 of the 175 fields examined in 30 counties. No boll weevils were found in the 19 fields examined in Catawba, Davie, Iredell, Lincoln and Rowan Counties. Weevils were found in all of the 15 fields examined in Greene, Martin, Perquimans, Robeson and Sampson Counties. The highest square infestations were reported in Johnson County where 29% of the squares were punctured and in Richmond County where 11% of the squares were punctured. Other counties where weevils were fairly numerous include Scotland, Wake, Union, Anson, Lenoir, Northampton, Warren, Wilson, Hertford, Franklin, Edgecomb and Hoke.

SOUTH CAROLINA: J. G. Watts, Entomologist, Edisto Experiment Station, Blackville, wrote on June 18: "Boll weevils are on the build-up. Beginning about June 6 we began finding boll weevils on the young cotton plants. This week the general average of square infestation in this area will run between 4 and 8%. Some counts have been as high as 25%. Weather conditions have been favorable for cotton growth and weevil activity."

The Extension Service reported on June 18 that the weevils continued to emerge from hibernation following local rains. The average number of weevils in the southern and eastern counties during the week ending June 15 was 129 weevils per acre.

GEORGIA: C. M. Beckham, Entomologist, Experiment, June 7 reported: "Boll weevil population counts to determine emergence indicate few weevils present. The highest count made in any field has been 53 weevils per acre. In the majority of fields no weevils have been found. In some fields examined cotton has begun to square."

C. M. Beckham reported that during the week ending June 22, boll weevils were found in 88 of the 170 fields examined in 30 counties. Weevils were found in 35 of the 74 poisoned fields examined, and in 53 of the 96 fields that had not been treated with insecticides before they were examined. The average infestation in the 74 fields that had received insecticides was 2.61% punctured squares, while the average in the 96 fields that had not received insecticides was 4.67% punctured squares. Among the highest infestations reported was a field in Fayette County with 20% punctured squares, in Lee County with 17% punctured squares, in Baldwin with 15%, Morgan County with 12%, Wilkinson County with 14% and Meriwether and Upson Counties with 10% punctured squares.

TENNESSEE: R. P. Mullett, Extension Entomologist, reported that during the week ending June 9, 6 boll weevils were taken from a half-acre of cotton and forwarded to the University of Tennessee by J. I. Bell, Savannah, Hardin County.

Arthur P. Morris, of the State Department of Agriculture, reported that during the week ending June 16, boll weevils were found in 3 of the 42 fields examined in 8 counties. No weevils were found in Dyer, Gibson, Haywood, Lauderdale, Madison, and Tipton Counties. Weevils were found in one of the 7 fields examined in Crockett County, and in 2 of the 6 fields examined in Henderson County. Weevils were found a the average rate of 83 weevils per acre in the infested fields and at the average rate of 6 weevils per acre for all fields examined.

FLORIDA: J. W. Wilson, Entomologist, Central Florida Experiment Station, Sanford, wrote on June 19 that he had collected a pint jar full of punctured squares from a cotton field and had noted some weevils were in the pupa stage.

ALABAMA: During the week ending June 16 James R. Davis found boll weevils in 20 of the 61 fields examined in 10 counties in east-central Alabama. The highest weevil populations were reported in Talladega County where weevils were found in 3 of the 6 fields examined at the rates of 350, 280, and 70 weevils per acre. The second highest infestations were reported in St. Clair County where weevils were found at the rates of 210, 140, and 70 weevils per acre. Weevils were also found in some of the fields examined in Tallapoosa, Coosa, Clay, Calhoun, Chambers, and Lee Counties. No weevils were found in the 12 fields examined in Cleburne and Randolph counties. In these 10 counties weevils were found at an average rate of 123 weevils per acre i the infested fields, and 40 weevils per acre in all fields.

Conrad J. Ward found weevils in 33 of the 60 fields examined in 10 counties in central and west central Alabama. The highest infestation was reported from one field in Chilton county that had weevils at the rate of 280 per acre. Other fields that had more than 200 weevils per acre were in Elmore, Greene, Perry, Pcikens, and Tuscaloosa Counties. Weevils were also found in Bibb, Hale, and Shelby counties. In these 10 counties weevils were found at the rate of 142 weevils per acre in the infested fields and at the average rate of 78 per acre in all of the 60 fields examined.

MISSISSIPPI: Mississippi Weekly Cotton Insect Report June 18: "Rains in nearly all sections of Mississippi the past week greatly improved the cotton outlook, but also made conditions more favorable for insect damage. Of 531 farms in 48 counties examined by Board inspectors and Federal entomologists, 195 had weevils. About 30 percent or 57 of the infested farms had cotton squaring, as compared to 23% of the infested farms on this date last year. The average infestation last week was 7% in contrast to 37% last year. The other 138 farms with younger cotton averaged 131 weevils per acre, as compared to 544 per acre on this date last year. Dr. Clay Lyle, Entomologist of the Board, calls attention to the heavy infestations of weevils even in the extreme northern counties adjacent to Tennessee, and warns that unless July and August are extremely hot and dry, severe damage is likely to occur in all sections of the state."

LOUISIANA: The Louisiana Experiment Station reported on June 15 that the infestation in the hill areas of north Louisiana seems to be as heavy as in 1950. The numbers of overwintered weevils in the Red River Valley indicate another year of potentially very serious boll weevil infestation for the area. In north-central Louisiana boll weevils are appearing in larger numbers since the rains, particularly in the hill section, where there appears to be as many weevils in the cotton fields as there were in 1950. In the northeastern section of the state near Tallulah, boll weevil emergence has increased and there was an average of 310 weevils per acre during the week ending June 14, 146 during the week ending June 7, and 77 during the week ending May 31. Boll weevils were found in all of the 26 fields examined in Bossier, Caddo, Claiborne, Ouachita, Rapides, Richland, Tensas, and Webster Parishes. No weevils were found in the two fields examined in Caldwell Parish, but those fields had previously been poisoned. In Madison Parish in northeast Louisiana weevils were found at the average rate of 310 per acre, while during the week ending June 7 they occurred at the rate of 146 per acre, and during the week ending May 31 at the rate of 70 weevils per acre.

ARKANSAS: A letter dated June 25 from the Extension Service reported boll weevils were found in 58 of the 61 fields examined in Lafayette County in the southwestern section of the state. Weevils were found in all of the 12 fields examined in Ashley County, in 5 of the 7 fields in Desha County, and in 8 of the 30 fields examined in Jefferson County in the southeastern section of the state. In the central part of the state weevils were found in 11 of the 13 fields examined in Pulaski County, and in 9 of the 88 fields in Lonoke County. In the eastern section of the state weevils were found in 6 of the 17 fields examined in Phillips County, in 5 of the 74 fields examined in Monroe County, and in 1 of the 9 fields examined in Crittenden County. In the northeastern section of the state weevils were found in 44 of the 171 fields examined in Jackson County, in 4 of the 37 fields in Randolph County (adjacent to Missouri), but no weevils were found in the examination of 20 fields in Craighead County.

OKLAHOMA: C. F. Stiles, Extension Entomologist, reported on June 14 that boll weevils had been found in southern Oklahoma in the counties of Bryan, Garvin, and Tillman; in eastern Oklahoma in the counties of Haskell and Muskogee; in northern Oklahoma in Payne and Wagoner Counties. He wrote: "It seems that the boll weevils are going to be pretty generally distributed over Oklahoma. There is not much cotton grown north of Payne County, but the weevils did overwinter this far north."

During the week ending June 15, the highest boll weevil populations were in Garvin County, where they were found to occur at the rate of 300 weevils per acre of seedling cotton. In Stephens County they were found at the rate of 210 weevils per acre. In Okfuskee and Pittsburg Counties they occurred at the rate of 150 per acre, and in McClain County at the rate of 120 per acre. Boll weevils were found in other cotton fields in Greer, Harmon, Jackson, McIntosh, Muskogee, Okmulgee, Tillman, and Wagoner Counties. No boll weevils were found in the examination of 16 fields in Beckham, Caddo, Kiowa, and Washita Counties. The average of all the 92 fields examined in 17 counties was 90 weevils per acre.

The Oklahoma Weekly Cotton Insect Report for the week ending June 16 states that boll weevils were found in 20 of the 29 counties where 140 fields of cotton were examined. The highest population was in a field in Marshall County where weevils were found to occur at the rate of 1200 per acre. No weevils were found in the other 3 fields examined in that county. In Love County no weevils were found in 3 fields, but the other 2 fields examined had weevils at the rate of 1050 and 300 per acre. In Haskell County no weevils were found in 4 fields, but in 1 field they occurred at the rate of 750 weevils per acre. In Garvin County no weevils were found in 12 fields, but in 1 field they were found at the rate of 1500 per acre, in 2 fields at the rate of 300 per acre, and in 3 fields at the rate of 150 per acre. In Stephens County no weevils were found in 3 fields, but 1 field had 750 weevils per acre, 2 fields had 300 weevils per acre, and a fourth field had 150 weevils per acre.

TEXAS: For boll weevil conditions in Texas, see "Cotton Insect Situation in Texas" on pages 8, 9, and 10.

PINK BOLLWORM

LOUISIANA: The Division of Pink Bollworm Control reported on June 12 that no pink bollworms had been found in Louisiana this season.

TEXAS: The Division of Pink Bollworm Control reported that the inspection of hundreds of cotton fields indicated that the pink bollworm populations are higher than a year ago in early June in the counties of Bee, Brooks, Calhoun, Jim Hogg, Jim Wells, Live Oak, Nueces, Refugio, and San Patricio. The heaviest infestations were reported in Nueces, Calhoun, and San Patricio Counties.

There are fewer pink bollworms now than a year ago in the counties of Dimmit, Kleberg, Maverick, Zapata, and Zavala. In Duval County, the examination of 74 fields indicated that the pink bollworm situation is about the same as it was at this time last year. A few pink bollworms have been found already this season in a few fields in the counties of Atascosa, Frio, Goliad, Karnes, LaSalle, McMullon, Val Verde, Victoria, Webb and Wilson.

No pink bollworms have as yet been found this season in the counties of Bastrop, Bexar, DeWitt, Fayette, Gonzales, Jackson, and Matagorda.

A report for the week ending June 9 mentioned that some pink bollworms had been found in cotton blooms in Dimmit , Frio, LaSalle, Maverick, Uvalde, Zapata, and Zavala. No pink bollworms were found in the 13 fields examined in Webb County.

A report for the week that ended May 26 indicated fewer pink bollworms in Cameron County than at that date last year, slightly more pink bollworms in Hidalgo County, and considerably increased infestations in Starr County. At that date only one infested field had been found this season in Willacy County.

THRIPS

NORTH CAROLINA: Cotton News Letter No. 12 on June 15 reported: "Thrips seem to be present in damaging numbers in only a few areas. Some fields near Monroe, Shelby, and Warrenton were showing injury."

GEORGIA: C. M. Beckham, Entomologist, Experiment, June 7 reported: "At the present time thrips are severely injuring cotton in north-central Georgia."

TENNESSEE: Arthur P. Morris reported thrips in 29 of the 42 fields examined in 8 counties in western Tennessee, but only 3 fields with heavy infestations.

ALABAMA: F. S. Arant, Auburn, reported on June 16: "We found...moderate to very severe thrips damage in Shelby, St. Clair, Cullman, Morgan, and Madison Counties. In some fields the stand of cotton was being damaged. Cool nights and dry weather have retarded the growth of cotton generally and the thrips were causing damage, which is more severe than I have ordinarily seen in Alabama. Farmers are applying insecticides for thrips control in fields where the damage is severe."

James R. Davis reported "light to moderately heavy infestations of thrips were noted in the 10 counties of east-central Alabama."

Conrad J. Ward reported thrips in 27 of the 60 fields examined in central and west-central Alabama. In 5 fields the infestations were heavy.

ARKANSAS: The county agents reported thrips injuring cotton in Ashley and Lonoke counties. (Extension Service Release, June 14).

OKLAHOMA: In the examination of 92 fields in 17 counties during the week ending June 15, only 1 field in Tillman County was heavily infested with thrips. Two fields in Tillman and Wagoner Counties had medium infestation. Forty-nine fields scattered through 11 counties had light infestations of thrips and no thrips were found in the other 40 fields.

TEXAS: Four vials containing thrips were collected from seedling cotton in the Brazos River bottom within 20 miles of College Station on May 1 by T. R. Pfrimmer. Miss Kellie O'Neill, of the Division of Insect Identification, found 1 vial contained specimens of the tobacco thrips, Frankliniella fusca (Hinds). The second vial contained specimens of the flower thrips, Frankliniella tritici (Fitch) and the other two vials contained specimens of Frankliniella exigua Hd.

APHIDS

NORTH CAROLINA: Cotton News Letter, June 15, stated that there were a few fields with heavy aphid populations in the Shelby, Monroe, and Raleigh areas.

ALABAMA: James R. Davis and Conrad J. Ward reported aphids in 79 of the 121 cotton fields examined during the week ending June 16. Twelve fields had heavy infestations. Thirty-two fields had moderate infestations and 35 fields had light infestations.

TENNESSEE: Arthur P. Morris reported aphids in 40 of the 42 cotton fields examined in 8 counties in western Tennessee, 23 with light infestations, 11 with medium infestations, and 6 with heavy infestations. Aphid damage had occurred or was occurring in 34 fields.

MISSOURI: V. F. Burk, Extension Entomologist, wrote on June 19: "I .... found considerable aphid damage in some fields .... some of the boys are using parathion and lindane on aphids with good results."

ARKANSAS: The county agents reported aphids causing damage to cotton in Ashley, Mississippi, and other Counties (Extension Service Release, June 14).

OKLAHOMA: In the examination of 92 fields in 17 counties during the week ending June 15, heavy infestations were reported in 2 fields in Washita County. Medium infestations were reported in 2 cotton fields in Stephens County, and 1 field in Tillman County. Light infestations were reported in 21 fields in 9 counties, and 65 fields were apparently free of aphids.

CUTWORMS

GEORGIA: C. M. Beckham, Entomologist, Experiment, June 7 reported: "Several complaints have been received from southwest Georgia on cutworm injury to cotton."

COTTON FLEAHOPPER

OKLAHOMA: In the examination of 92 fields in 17 counties during the week ending June 15, cotton fleahoppers were reported from only 2 fields in Jackson County and 2 fields in Tillman County. The other 88 fields were apparently free of fleahoppers

SOUTH CAROLINA: The Extension Service reported on June 18 that fleahoppers and blasted squares were reported from all counties in the northwestern part of the state.

BOLLWORMS

MISSISSIPPI: Clay Lyle reported on June 18: "Bollworms were present in some fields in large numbers, 1 field in Leflore County having 58% of the buds damaged by worms."

GEORGIA: C. M. Beckham, Entomologist, Experiment, reported that during the week ending June 22, bollworms were found in 47 of the 170 fields examined in 30 counties. However, the average infestation in no county exceeded 2% damaged squares

SOUTH CAROLINA: The Extension Service reported on June 18: "Outbreaks of bollworms are widely scattered throughout the state, with damage to squares and terminal growth reported."

SPIDER MITES

NORTH CAROLINA: Cotton News Letter, June 15 stated that spider mites were noted in a few fields in Cleveland and Rutherford Counties.

MISCELLANEOUS INSECTS

SOUTH CAROLINA: On May 14 R. L. Walker, Florence, collected weevils on cotton that were identified as Baris interstitialis (Say), a species that is sometimes known as the cocklebur weevil. It is frequently found on young cotton, and sometimes has been reported as causing noticeable injury. On May 16, L. C. Fife, Florence, collected weevils on young cotton that proved to be the cowpea weevil, Chalcodermus aeneus Boh., another species that is frequently found on young cotton, and sometimes appears in sufficient numbers to cause serious damage. On May 16 Mr. Fife collected some lepidopterous larvae from cotton at Bishopville that were determined as a species of the Euxoa group of the family Phalaenidae. Dr. Franclemont reports that there is nothing in the National Museum collection like these larvae. It is hoped that additonal specimens may be collected and that some of them may be reared for definite determination.

TENNESSEE: In the examination of 42 cotton fields in 8 counties in western Tennessee, Arthur P. Morris recorded during the week ending June 16 tarnished plant bugs in 1 field, rapid plant bugs in 2 fields, and lepidopterous larvae in 2 fields.

COTTON INSECT SITUATION IN TEXAS

K. P. Ewing reported (June 25):

"Fleahoppers have increased and need controlling in some fields in southern areas.

"Scattered injurious bollworm infestations continue to appear in southern areas, and scattered eggs are being found as far north as Waco. Light to medium infestations which need controlling have appeared in a few fields of extremely succulent cotton as far north as Falls, Grimes, and Burleson Counties.

"Pink bollworms continue to be found in fairly large numbers as far north as Calhoun County. However, no pink bollworms have been found in central Texas or in counties outside of the previously infested territory.

"Red spiders have been reported around the edges of a few fields, mostly in Brazos and Burleson Counties. Aphids continue to be scarce throughout all areas of the state. A few sporadic outbreaks of webworms have been reported, especially around San Angelo, Sweetwater, and Lamesa.

"Southwest - Twenty-two unpoisoned and 39 poisoned fields were inspected in Webb, McMullen, LaSalle, Duval, Live Oak, Starr, Jim Hogg, Frio, Maverick, Zavala, and Brooks Counties. The unpoisoned fields averaged 37 fleahoppers per 100 terminals and the poisoned averaged 14. The heaviest fleahopper infestations were in Duval County, and the next highest in McMullen, Jim Hogg, Zavala, Brooks, Live Oak, and LaSalle. Weevil infestations were either non-existant or extremely light in all fields except in 1 field in Starr County, which averaged above 25% punctured squares.

"Coastal Bend - The 74 fields examined in San Patricio, Refugio, Aransas, Jim Wells, Kleberg, and Nueces Counties showed practically no weevils, and light to medium fleahopper infestations in most fields. Eight fields averaged above 25 fleahoppers per 100 terminals. A few fields showed light bollworm and red spider infestations.

"Upper Coastal - There was a rather sharp increase of fleahoppers in some fields with little or no increase in boll weevils except in timbered areas of Wharton and Fort Bend Counties. Thirty-seven poisoned and 34 unpoisoned fields were examined in Victoria, Jackson, Calhoun, Wharton, Brazoria, Fort Bend, Harris, and Matagorda Counties. The weevil infestation averaged 4% in the poisoned, and 14% in the unpoisoned fields, and the fleahopper infestation averaged 10 per 100 terminals in the poisoned and 47 in the unpoisoned fields.

"Fewer injurious bollworm infestations were found this week than during the previous week. A few fields have been treated for red spider control. The results were good. Cabbage loopers are appearing in unusually large numbers in some fields."

"South Central - Weevils and fleahoppers increased only slightly this week over last week. Examinations were made in 108 poisoned fields and 69 unpoisoned fields in Washington, Lee, Fayette, Colorado, Bee, Travis, Bastrop, Caldwell, Gonzales, Burleson, Austin, Bexar, Goliad, Guadalupe, and Hays Counties. The average boll weevil infestation was 8% in the poisoned, and 13% in the unpoisoned fields, and the fleahopper infestation averaged 3 and 6 fleahoppers per 100 terminals in the poisoned and unpoisoned fields, respectively. Light scattered bollworm infestations were found, with an occasional medium to heavy infestation that needed control. Aphids continued very light.

"Central - Weevil and fleahopper infestations continue light in this area. One hundred and eighty-seven fields were inspected in Milam, Bell, McLennan, Falls, Williamson, Navarro, Hamilton, and Limestone Counties. The average fleahopper infestation was 2 per 100 terminals and the average weevil infestation was 6. Fifty-nine unpoisoned fields averaged 12% weevil punctured squares and the poisoned fields averaged 2%. Forty-two percent of the unpoisoned fields averaged above 10% weevil punctures, while only 6% of the poisoned fields averaged above 10%.

"Bollworms are appearing in a few fields. One 27-acre field of extremely succulent cotton in Falls County had sufficient bollworm infestation to need control.

"North Central - Fleahopper infestation counts were made in 151 fields and boll weevil square counts were made in 62 fields in Fannin, Grayson, Kaufman, Lamar, Collin, Hunt, Tarrant, Delta, Denton, Rockwall, Ellis, Cooke, and Dallas counties. Many fields in this area are not yet fruiting sufficiently for square infestation records. The weevil infestation averaged 12% in the poisoned and 19% in the unpoisoned fields. The fleahopper infestation was low, average of 4 per 100 terminals. Some fields need poisoning for control of weevils and fleahoppers."

"North-East - Boll weevil square infestation records were made in 41 fields and fleahopper counts were made in 87 fields in Hopkins, Red River, Van Zandt, Smith, Penola, Bowie, Gregg, and Rains counties. The weevil infestation averaged 16% in the poisoned and 40% in the unpoisoned fields. Fleahopper infestations were light in practically all fields throughout the area.

"East Texas - Weevil infestations are high in many fields, especially in the unpoisoned fields. Inspections were made in 146 fields in Houston, Anderson, Freestone, Henderson, Cherokee, Nacogdoches, Shelby, Robertson, Walker, Grimes, Brazos, Leon, and Montgomery Counties. The weevil infestation averaged 12% in the poisoned fields, and 27% in the unpoisoned fields. The fleahopper infestation was extremely low, less than 2 per 100 terminals.

"Cross Timbers - Inspections made in 8 fields in Shackelford, Comanche, Jack, Montague, and Young Counties showed practically no boll weevils or fleahoppers in the cotton. Most cotton is still very small in this area.

"Northwest - Thirty fields were examined in Runnel, Taylor, Fisher, Jones, Nolan, Borden, and Wichita Counties. Light infestations of thrips were found in about 40% of the fields and boll weevils were found in only 1 field. The webworm was found in damaging numbers in scattered fields.

"West Central - Eighteen fields were inspected in Tom Green, Burnett, Lampasas, San Saba, and Uvalde Counties. Boll weevils and fleahoppers were found damaging some fields in Uvalde County, and webworms were doing considerable damage in Tom Green County."

COTTON INSECTS IN THE LOWER RIO GRANDE VALLEY OF TEXAS

Excerpts from "Cotton Insect Survey of the Lower Rio Grande Valley, Report No. 14," issued on June 14, by R. N. White, San Benito, Texas:

"Cotton prospects continue to be very good with many growers reporting the best crop at this stage they have had in recent years. Insect damage continues to be light with varied and scattered damaging infestations.

"Fleahoppers are becoming more numerous throughout the area and some fields in Central Hidalgo and Cameron Counties are in need of control.

"Careless weed worms are reported doing severe damage to cotton in Central and Eastern Cameron County.

"Bollworms are being found in scattered fields, but the overall infestation is very light at this time. Beneficial insects, such as the insidious flower bug and lady bird beetles are very abundant and these are a big factor in bollworm control.

"Thrips are causing severe damage to several fields of fruiting cotton in Central Cameron County and in scattered fields in Southern Hidalgo County.

"Red spiders are still causing damage along the river in Southern Cameron County and have moved into adjoining areas. A few are being reported in scattered fields throughout the area.

"Boll weevils have been found in a few more locations but still are found only in spots in very few of the more favorable fields."

Excerpts from "Cotton Insect Survey of Lower Rio Grande Valley, Report No. 15," issued on June 21, by A. N. White, San Benito, Texas:

"Fleahoppers are present in damaging numbers in several fields throughout the 3 county areas. The older cotton can be damaged some by fleahoppers, but most of the squares and bolls in these fields are beyond the stage of serious damage. Late cotton that still has to make the middle and top crop can, of course, be severely damaged by the fleahoppers.

"Red spiders are present in some degree in several fields, particularly in Cameron and Willacy Counties, and some fields need control. The infestation seems to be heavier where the plants are suffering from lack of water.

"Boll weevils are more widely scattered this week; however, the overall infestation remains light. Some fields were reported as having 15 to 25% damaged squares southwest of San Benito and south of Pharr.

"A few small worms, identified by Paul T. Riherd of the Valley Experiment Station, as Salt Marsh Caterpillars, have been found in at least 3 widely scattered fields in the Valley.

"Bollworms and aphids continue to be very light, with only an occasional infestation which needs controlling.

"We would like to make a correction in the statement quoted from Mr. Cavitt last week on bloom inspections for pink bollworms. Cameron was only 17% as heavily infested as last year, but Hidalgo County was virtually the same as during 1950, while Starr County was more heavily infested this year than during 1950."

IRRIGATED COTTON OF THE SOUTHWEST

ARIZONA: W. A. Stevenson reported on June 15 concerning cotton insect conditions in Maricopa County as follows: "Injurious hemipterous insect populations on cotton consisted mainly of *Lygus* spp. High counts were found only in a few of the more advanced planted cotton fields and some of the stub fields. Most of the cotton fields, which showed a high lygus count in last week's sweepings have been dusted or sprayed with DDT. Most of the treatments were put on with ground equipment. In the Litchfield area the Goodyear Farms have sprayed all of their cotton (over 2000 acres) 3 times this season, twice for thrips and once for *Lygus* spp. Spray was put on with tractor-driven ground equipment, 1/2 pound of DDT was applied per acre application. A few beet armyworms were seen in some of the cotton fields. Fields with hemipterous insects at the rate of 10 or more per 100 net sweeps were noted in Avondale, Waddell, Higley, and Queen Creek sections of the county."

Concerning conditions in Pinal County, Mr. Stevenson reported: "Several fields were checked in the Eloy district and very serious thrips damage was noted. Many plants had been killed outright and the plants remaining were seriously retarded. Counts made in the fields showed the populations to approach 75 to 80 thrips per plant. Control measures are underway but the weather has been unfavorable for dust. Ground sprayers depositing 1 pound of technical DDT per acre in 5½ gallons of water are being used. Beet armyworms are also fairly numerous in a number of fields, and will undoubtedly require control measures."

In the Santa Cruz Valley he reported: "A light to fairly heavy general beet armyworm infestation was noted in the Continental area during the week. Worms were doing extensive damage to the late planted cotton and were also attacking the large squares on the earlier planted cotton. Several bollworms were also found in the large squares. Mites were noted in a field of short staple cotton but were confined to only a few cotton plants. Despite early season dusting for thrips control, such damage is apparent from thrips in a number of fields."

NEW MIXICO: W. B. Rogers reported: "Large acreages in Dona Ana County have been and are being treated for thrips, principally with DDT plus toxaphene emulsions. Aphids to date are the principal insects in Luna County."

The New Mexico Cotton Letter, issued by the Extension Service, on June 19 is the first weekly cotton insect report for 1951. It reported that during the week ending June 16 thrips were prevalent in most fields throughout the cotton-producing areas of the state. The thrips now attacking cotton are coming from other crops, such as grains, alfalfa, clover, and some of the spring maturing grasses. "The cowpea aphis" is present in small numbers in many fields throughout the state. This black species of aphid is probably migrating into the cotton from clover and alfalfa. Some control measures have been taken in the Mesilla Valley.

"Fleahoppers are appearing in some fields in Lea County. Infestations are light, with no reported control measures having been taken."

TEXAS: El Paso Valley: L. W. Noble reported June 9: "Because of the advanced stage of cotton growth and the prevailing low thrips infestation, it appears that any further damage by these insects will be negligible. Injurious aphid infestations on cotton were noted in a few fields. A few 'black fleahoppers' were also noted. Cotton is still too small for satisfactory sweeping records, but hemipterous cotton insect populations developing on alfalfa increased over last week, but continued low as compared to last year. The emergence of pink bollworm moths is about the same as in 1950.

Excerpts from "Weekly Cotton Weather Bulletin" issued by the Weather Bureau, U. S. Department of Commerce, New Orleans, Louisiana for the week ending June 19:
Texas: Satisfactory progress but needs hot open weather to permit cultivation, insect control; First bale reported Lower Valley.
Oklahoma: Insects prevalent in many fields, heavy emergence weevils expected when weather warms.
Mississippi: Weather favored weevil, thrip activity with infestation increasing.
Alabama: Thrip damage to cotton severe in some local areas; few weevils.

June 29, 1951

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